FRANCHISES OF PUBLIC UTILITIES AS THEY WERE AND AS THEY ARE

By Henry C. Hodgkins

The developing and perfecting of what the real estate man calls modern conveniences and of those structures necessary for furnishing the means for the employment of these conveniences, which the publicist calls public utilities, have been so rapid and have become so necessary to every human habitation that public utilities and their franchises are receiving the widest publicity and attention as a great economic question. It is the purpose of this paper to consider only such utilities as are ordinarily within the limits of the municipality.

Mr. D. F. Wilcox makes the following list of municipal utilities: electric light and power, telephone, telegraph, electrical signals, electrical conduits, water supply, sewerage, central heating, refrigeration, pneumatic tubes, oil pipe lines, and artificial and natural gas. To these the statutes of some of the states have added street railroads, storage and wharfage.

We can better appreciate the relation of these utilities to the public and the engineer by knowing something of their history.

PNEUMATIC TUBES

Mail was transmitted about $\frac{1}{2}$ mile through a pneumatic tube as an experiment in the years 1893–1898. In 1908 there were 42.2 miles, all operated by private companies under contracts with the government.

CENTRAL HEATING

Central heating is said to have been in successful operation since 1877. In 1902 there were 130 plants, of which 82 were operated in connection with other utilities.

SEWERS

Time will not permit to enter upon this subject, but the author will merely state in passing that the municipal year book of 1902

gave 47 cities and towns as having sewerage systems operated by private companies under franchises.

TELEGRAPH

The telegraph was invented about the middle of the nineteenth century. The Western Union Telegraph Company was incorporated in 1851, under the name of the New York and Mississippi Valley Printing and Telegraph Company, and assumed its present name in 1856.

SIGNALING SYSTEM

Signaling systems were developed with the telegraph. A great variety of wire signaling systems have been evolved. The wireless systems have hardly reached the classification of municipal utilities.

TELEPHONE

The first regularly equipped commercial exchange was in New Haven in 1878. From then until 1894, the date of the expiration of the patents, the business of the country was controlled by the Bell Telephone Company.

ELECTRIC STREET RAILWAYS

Electric trolley roads were first put into operation about 1888. The first one was in Iowa, at Des Moines, the second one, at Richmond, Virginia, was completed in 1888. There were others following closely. The writer's diary for 1888 states that in June, on a trip to see President Wilber of the Lehigh Valley Railroad in regard to a steam road, he stopped at Scranton to see an electric trolley in operation. They had only a few cars. There were also cars in operation in Wilkesbarre and they had difficulty with the trolley, and at corners a man would climb to the top of the car to keep the trolley in contact with the wire.

ELECTRIC LIGHT

The first central station operating electric arc lamps was installed in San Francisco in 1879, the Brush system. The Edison system of incandescent lighting was first put into operation in connection with central station lighting in 1880. It was not until some years later that the alternating current became a commercial possibility. In

1888, the writer installed a central station alternating machine at Rochester, Minnesota. At that time the Thompson and Houston Company, the predecessor of the General Electric, would give no guarantee whatever for their alternating dynamo, not even that it would generate the current.

In 1902 there were 3620 central electric lighting stations; in 1907 there were 4714 central electric lighting stations; in 1902 there were 815 or 22½ per cent owned by cities. About 1907 the hydro-electric commission of Ontario was in operation and had contracted for 100,000 h. p. at Niagara Falls and Toronto had contracted for 15,000 h. p. at $14.75 to $17.75.

GAS

Richmond, Virginia, may claim to be the first city in America to be lit with gas. "As early as 1800 a tower some 40 feet high was erected and the numerous jets that surmounted it were lit from gas generated below, by a process invented by a man named Henfry. It proved of no value."

Gas is said to have been used for lighting in Manchester, England, about 1804–1805. In 1813 it was used for lighting London Bridge. In the United States a man in Newport, Rhode Island, lighted his premises with gas in 1806. A gas company was organized in Baltimore in 1816. Boston and New York 1822–1823, Brooklyn and Bristol, 1825, New Orleans 1835.

The early history, so far as available, was a series of failures. The first public gas light in Boston was in 1829. Gas sold at $5 to $6 per 1000 cubic feet. In 1850, according to the federal census, there were 30 gas plants. The writer for a time owned a plant that was built in 1851. In 1900 there were 877 gas works.

WATER WORKS

Water works are the oldest of all municipal utilities. Water by some means has always been supplied, but it is only since about 1800 that it has been supplied in this country through regular systems of piping.

According to the *Manual of American Water Works of 1890–1891*, there were in the United States in 1800, sixteen water works of which one was owned by the public and fifteen by companies.

The increase for the next fifty years was slow.

In 1850 there were 33 public and 50 private; in 1875 there were 227 public and 195 private; in 1880 there were 293 public and 305 private; in 1890 there were 878 public and 1159 private; in 1897 there were 1690 public and 1489 private.

In Canada in 1890 there were 59 public and 36 private; in Canada in 1897 there were 109 public and 35 private.

There has been no compilation of water works statistics since 1897. The number of works has greatly increased, and the ratio of public to private works has also greatly increased, both from new construction and purchases by cities of private works.

It is therefore apparent that private capital has taken the initiative in all the municipal utilities, and, with the exception of water works, still remains in the possession and operation of a large proportion of the municipal utilities. Probably more than 90 per cent of all municipal utilities, outside of water works, are operated by companies. In this connection the writer would call your attention to the statement that prior to 1880 there were probably not to exceed 700 of what we call municipal utilities in existence in this country, and in 1850 only about 120. The question of rights under which these companies operated was not regarded of great importance prior to 1880.

The inventions of recent years, and the demand for all sorts of conveniences, have so increased the utilities that it is essential to the engineer to understand the franchises under which they operate.

Finch gives the following definition: "A franchise is a royal privilege in the hands of a subject." This definition was accepted by Blackstone and others. Another definition by Kent is that franchises are certain privileges conferred by a grant from the government and vested in individuals.

A definition generally accredited to Chief Justice Taney of the United States supreme court is, "Franchises are special privileges conferred by the government on individuals and which do not belong to the citizens generally of common right."

The word franchise is frequently used to denote a right or privilege, in a legal sense franchise and liberty are said to be synonymous.

The definition by Finch has been criticised as not being strictly correct under our government and laws, since franchises are based in this country upon contracts between the sovereign power and private citizens made upon a valuable consideration for purpose of public benefit as well as individual advantage, and it is said by Chancellor

Kent, "Franchises contain an implied contract on the part of the government not to invade the rights vested, and on the part of the grantees to execute the conditions and duties prescribed in the grant."

Distinction should be made between corporate franchises and special franchises. A corporate franchise is the right to exist as a corporation and do the business specified. A special franchise is, for example, the right to enter upon highways, public grounds, etc., and place certain structures thereon.

Much confusion has existed as between a contract and a franchise for the reason that both are frequently embodied in the same ordinance. As stated by Chancellor Kent, a franchise generally contains an implied contract or covenant, but a contract to render a specific service as, for example, lighting of streets or water for fire protection is not a franchise, although a franchise may be and generally is necessary for carrying out the contract.

For the purpose of comparison and also to show what the general provision of statutes has been regarding franchises the following table was compiled from information obtained from the two volumes of *The Law of Incorporated Companies Operating Under Municipal Franchises*, by Allen R. Foote, and Charles E. Everett, which brings the subject down to 1892.

In 41 states in the table, the length of time for which a franchise may be granted according to the general law is unlimited in 16 states; in 18 states franchises may be perpetual. In 5 states franchises are granted by special charters and no limit is mentioned. In 27 states the length of time for which a contract could be made is not limited by the general law.

In Nebraska a contract must provide for purchase after ten years. In Wyoming a franchise must contain the express condition that the municipality shall have the privilege of purchasing after twenty years.

Pennsylvania and Ontario are the only instances where the terms of purchase are explicitly stated and they are so widely divergent that the writer will give each of them. In Pennsylvania "A municipality may, after twenty years, become the owner of a gas or water company on paying therefor the net cost of erecting and maintaining the same, with interest thereon at the rate of 10 per cent per annum, deducting from said interest all dividends theretofore declared."

STATE	LENGTH OF FRANCHISE	PERPETUAL	LENGTH OF CONTRACT	REMARKS
Alabama	No general law. Usually 25 years.	Not perpetual.	As agreed.	
Arkansas	No general law.	Not perpetual.	As agreed.	
California	Not to exceed 25 years.	Not perpetual.	As agreed.	
Colorado	20 years Denver. 25 yrs. for water and gas. Gas other places.	Not perpetual.	1 year.	
Connecticut	Special charters			
Delaware	Special charters.		No limitation.	Unless specified in city charter.
Florida	Special charters	May be perpetual.	No limitation.	Legislature has limited corporate exemption to 20 years.
Georgia	Usually granted for definite time.	May be perpetual.	No limitation.	
Idaho	50 years.		50 years.	
Illinois	Street railways 20 years. Others no limit.	May be perpetual.	No limitation.	Limited as to city debt.
Indiana	No limitation.	May be perpetual.	No limitation.	Limited as to city debt.
Iowa	25 years,		Implied 25 years.	
Kansas	20 years.		Implied 20 years.	
Kentucky	20 years.		Implied 20 years.	
Louisiana	99 years.		No limitation.	
Maine	As granted.	May be perpetual.	No limitation	
Maryland	No limitation.	May be perpetual.	No limitation.	
Massachusetts	No limitation.	May be perpetual.	No limitation.	Law seems to provide for free water for fire purposes.

Michigan.....	No limitation or for 30 years.	May be perpetual.	30 years.	
Minnesota.....	50 years.	Not perpetual.	No limitation.	No special provision for contract.
Mississippi.....	99 years.	Not perpetual.	25 years.	If ratified by vote.
Missouri.....	As granted.	As granted.	20 years.	
Nebraska.....	First class 20 years. Second class cities water 25 years, gas 21 years.		Implied 25 years.	If ratified by vote, and reserves right to purchase after 10 years.
Nevada.....	No limitation.	May be perpetual.	As agreed.	Franchise granted for all sorts of purposes. City contract not required.
New York.....	Gas and electricity 50 years; may be renewed	May be perpetual.	5 years.	Contract not to exceed 2½ mills on $1 of taxable property and may be for not exceeding 30 years if ratified by vote.
New Hampshire...	No limitation.	May be perpetual.	No limitation.	
New Jersey.....	No limitation.	May be perpetual.	No limitation.	
North Carolina...	60 years.		No limitation.	
Ohio.....	Street railways 25 to 50 years.	May be perpetual.	10 years.	Contract for water may be for 20 years if ratified by vote.
Pennsylvania.....	No limitation.	May be perpetual.	10 years.	
Oregon.....	No limitation.	May be perpetual.	No limitation.	
Rhode Island.....	25 years.		No limitation.	
South Carolina....	No limitation.		No limitation.	
South Dakota.....	Street railways 20 years. Others no limitation.	May be perpetual.	No limitation.	

STATE	LENGTH OF FRANCHISE	PERPETUAL	LENGTH OF CONTRACT	REMARKS
Tennessee.....	Perpetual; subject to repeal.		No limitation.	Constitution prohibits perpetuities.
Texas.....	50 years.		No limitation.	
Vermont.....	No limitation.		No limitation.	Gas companies are authorized to do electric lighting.
Virginia.....	No limitation.		No limitation.	
West Virginia.....	No limitation.	May be perpetual.	No limitation.	
Wisconsin.....	Gas 50 years. Others no limitation.	May be perpetual.	No limitation.	Contract with gas company 10 years.
Wyoming.....	Street railways 10 years. Water 20 years.		10 years for water.	Franchise for water must be ratified by vote and must contain right to purchase within 20 years.
Ontario.....	50 years.	50 years.	10 years.	
Quebec.....	50 years.	50 years.		

In Ontario: "The arbitrators in determining the amount to be paid for such works, gas or water, and property, shall first determine the actual value thereof, having a regard to what the same would cost if such works should be then constructed, or such property then bought, making due allowance for deterioration, wear and tear and making all other proper allowances, and shall increase the amount so ascertained by 10 per cent thereof which increased sum the said arbitrators shall award as the amount to be paid by the corporation to said company, with interest from date of their award."

EXCLUSIVE FRANCHISE

Many companies held that their franchises were exclusive. The New York state court of appeals, in the case of the Syracuse Water Company vs. the City of Syracuse,[1] decided, "A franchise to be exclusive must therefore be given by the terms of the grant, otherwise it is not a resultance from its nature." This case was carried to the supreme court of the United States and by that court was dismissed.

Therefore there are probably very few, if any, exclusive franchises, but there are probably a good many perpetual franchises.

The length of contracts for public services has been fixed by the local authorities even where the statutes placed no limitations. Some were made for only one year at a time, a great many were made for twenty years and a smaller number for twenty-five or thirty years.

The history of American water works is the most fruitful field for the study of franchises, owing to the fact that such a large number of works have been constructed under franchises, and, after being operated during the term of the franchise or of a long contract, have passed to the possession of the municipality, and in some instances have been forced out of existence by the competition of additional works built by the municipality. In granting these franchises it was the custom in many cases for the city to employ an engineer to lay out the system of pipe distribution, specify the reservoir or standpipe and the pumping machinery, and prepare the franchise, and then call for bids on a hydrant rental basis. In some cases complete detailed specifications were embodied in the contract. The usual custom was to provide a test of fire streams which really measured the capacity of the works. In the writer's experi-

[1] 116 New York, page 167, October, 1889.

ence these tests ranged from 4 streams 80 feet high in some small places to 30 streams 100 feet high, as at Peoria, Illinois. Complete schedules of rates to private consumers were as a rule embodied in these franchises, and as a general rule the right or option to purchase was reserved to the municipality.

During the ten years from 1880 to 1890, over 850 works were built under franchises, and, as the hydrant rental contracts were mostly for twenty years or under, these contracts have expired, and in a large number of cases the works have passed to the ownership of the municipalities.

Of the over 60 places of the writer's experience nearly 90 per cent have passed to the ownership of the municipalities.

Of the 12 places in Canada only one remains in the hands of a company.

Of the 10 electric plants, 7 are still owned by companies.

It is well to stop and consider the element of time in these matters. A majority of these utilities have been evolved and made practicable within the life-time of most of us, and it is less than the span of a generation since the terms of municipal franchises were charged with being in conflict with the interests of the public. In fact it was not so much franchise seekers as it was a seeking after those who would accept of franchises. As has been shown, time limit was lightly considered, and the limitations that were made were due more to a confusion of terms than to intent to cause the demise at specified date. As time passed and the business of franchise companies developed to a profitable basis, a change in sentiment was brought about. A fierce strife between the municipality and the utility corporation occurred in many instances; a clamor for shorter contracts and a definite term for franchises, fixing a date when the utility must cease to exist and its funeral obsequies be celebrated. The fallacy of such reasoning was soon evident. For the state to kill its own creation at a fixed date only to replace it by a similar creation which might, perchance, pass to the same hands as the owners of the late deceased was absurd. Moreover utilities must not cease to exist. To shut off the city's light would be a calamity; to deprive it of water would mean famine; to stop the flow of gas means freezing, and to interrupt the telephone service would be an intolerable inconvenience. Utilities are absolutely essential. They must be maintained and operated in the most certain and efficient manner, and must continue indefinitely, or until something better

has developed that can take their place. In plain language, a utility can not be divested of its franchise and the only way a franchise can in equity terminate is by the property going to the source from which the franchise emanated.

The writer has due regard for the many able minds that believe that the term of a franchise should be short and definite. Their position is, however, entirely untenable unless they provide for the orphaned property after its right to live and be utilized has terminated.

All these considerations are bringing about a change in the manner in which public utilities are regarded. Public service commissions are becoming the rule.

The railroad commission of Wisconsin was established in 1905 and two years later was given jurisdiction over all public utilities. The law in the state of New York establishing two public service commissions was enacted in 1907, during the administration of Governor Hughes. This law as amended in 1910 is used as an argument in many of the states for similar laws. The rapid spread of commission legislation; the vast number of decisions of different commissions reasoning from different viewpoints; the very considerable contribution by engineers on the terms of regulation, valuation and rates has created a mass of literature scattered through pamphlets, society reports, etc. This mass of material has yet to be compiled and made available for the guidance of the interests affected.

In 1913 The National Civic Federation published a work entitled *Commission Regulation of Public Utilities.* "A compilation and analysis of the laws of 43 states and of the federal government for the regulation by central commissions of railroads and other public utilities." From this work and an article in the *Annal* by I. L. Sharfman, much of the following information was obtained.

Since 1913 two states have established commissions and seven others have added largely to their statutes. Delaware, Utah and Wyoming[2] are the only states having no central commissions. New York, Massachusetts and South Carolina have each two commissions and in Massachusetts the telephone and telegraph are under the jurisdiction of the highway commission.

The following table shows the utilities of each state which are under the jurisdiction of their respective commissions.

[2] Law providing for commission passed in 1915.

	COMMON CARRIERS	STREET RAILROADS	TELEPHONE	TELEGRAPH	GAS	NATURAL GAS	ELECTRIC LIGHT	WATER	POWER	HEATING	IRRIGATION	PIPE LINES	STORAGE	WHARFAGE	TRANSMISSION
Alabama	—	O	—	—	O	O	O	O	O	O	O	—	O	O	O
Arizona	—	—	—	—	—	O	—	—	O	—	—	—	O	O	O
Arkansas	—														
California	—	O	—	—	—	O	—	O	—	—	O	O	—	—	O
Colorado	—	O	O	O	—	O	—	O	O	—	O	O	O	O	O
Delaware															
No commission															
Connecticut	—	—	—	—	—	—	—	—	—	O	O	O	O	O	—
Florida	—	O	—	—	O	O	O	O	O	O	O	O	O	O	O
Georgia	—	O	—	—	—	O	—	O	—	O	O	O	O	—	O
Idaho															
Illinois	—														
Indiana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Iowa	—	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Kansas	—	O	O	O	O	O	O	O	O	O	—	O	O	O	O
Kentucky	—	O	O	O	O	O	O	O	O	O	O	—	O	O	O
Louisiana	—	O	—	—	O	O	O	O	O	O	O	—	O	O	O
Maine	—	—	O	O	O	O	O	O	O	O	O	O	O	O	O
Maryland	—	—	—	—	—	—	—	—	—	—	O	O	O	O	O
Massachusetts															
Gas and Electric					—		—								
Railroad Commission	—	—				O		O	O	O	O	O	O	O	O
Highway Commission			—	—											
Board of Health								—							
Minnesota	—	O	O	O	O	O	O	O	O	O	O	O	—	O	O
Mississippi	—	—	—	—	O	O	O	O	O	O	O	O	O	O	O
Missouri	—	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Montana	—	—	O	O	O	O	O	O	O	O	O	O	O	O	O
Nebraska	—	—	O	O	O	O	O	O	O	O	O	O	O	O	O
Michigan			—	—	—	—	—	—	—	—	O	—	O	O	—*
Nevada	—	O	—	—	O	O	O	O	O	O	O	O	O	O	O
New Hampshire	—	—	—	—	—	—	—	—	—	—	O	O	O	O	O
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—	—	O
New Mexico	—	—	—	—	O	O	O	O	O	O	O	O	O	O	O
New York	—	—	—	—	—	—	—	O	O	O	O	O	O	O	O
North Carolina	—	—	—	—	O	O	O	O	O	O	O	O	O	O	O
North Dakota	—	O	—	—	O	O	O	O	O	O	O	O	O	O	O
Ohio	—	—	—	—	—	—	—	—	—	—	O	—	—	—	O
Oklahoma	—	O	O	O	—	O	—	O	—	—	O	O	O	O	—
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—	—	O	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	O	—	—	—	—

	COMMON CARRIERS	STREET RAILROADS	TELEPHONE	TELEGRAPH	GAS	NATURAL GAS	ELECTRIC LIGHT	WATER	POWER	HEATING	IRRIGATION	PIPE LINES	STORAGE	WHARFAGE	TRANSMISSION
South Carolina															
Railroad Commission	—	o	—	—											
Public Service Commission					—	—	—	—	o	o	o	o	o	o	†o
South Dakota	—	—	—	o	o	o	o	o	o	o	o	o	o	o	o
Tennessee	—	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Texas	—														‡
Utah															
No commission															
Vermont	—	—	—	—	—	o	—	o	—	—	o	o	o	o	o
Virginia	—	—	o	o	—	o	—	—	—	—	o	—	o	o	—
Washington	—		—	—	—		—	—	o	o	o	o	o	—	—
West Virginia	—	—	—	—	—	—	—	—	—	—		—	—	—	—
Wisconsin	—	—	—	—	—	—	—	—	—	—	o	—	—	—	—
Wyoming															
No commission. Law passed at 1915 session of legislature															

* New law goes into effect September 1, 1915.

o indicates no control.

— indicates control by commission.

† Does not apply to Charleston, Marion, Spartanburg, Sumter, Union or town of Conway.

‡ New law being prepared during winter of 1915. (Law passed and took effect 90 days after adjournment of Legislature.—Editor.)

Twenty-four states make express provisions for the valuation of properties of public utilities by the commissions.

Arizona	Maryland	Oklahoma
Arkansas	Massachusetts	Oregon
California	Michigan	Pennsylvania
Florida	Minnesota	South Dakota
Georgia	Mississippi	Texas
Illinois	Nebraska	Washington
Indiana	New Jersey	West Virginia
Kansas	Ohio	Wisconsin

Rates must be just and reasonable. A reasonable average return upon the value of the property actually used in the public service

and the necessity of making reservation out of income for surplus and contingencies are generally recognized. Unjust discrimination is almost invariably prohibited. Publicity in the establishment and change of rates is as a rule required.

Authority to fix, establish or prescribe rates and charges is given in 24 states.

Arkansas	Montana	Charleston, Marion, Spartanburg, Sumter and Union or the Town of Conway)
Florida	Nebraska	
Georgia	Nevada	
Illinois	New Mexico	
Iowa	New York	
Kansas	North Carolina	South Dakota
Louisiana	North Dakota	Tennessee
Michigan	Oklahoma	Texas
Mississippi	South Carolina	Virginia
Missouri	(does not apply to	Wisconsin

Authority to regulate accounts, etc., is given in 27 states.

Alabama	Massachusetts	Oregon
Arizona	Michigan	South Dakota
California	Minnesota	Texas
Connecticut	Nebraska	Vermont
Florida	Nevada	Washington
Georgia	New Hampshire	Wisconsin
Iowa	New Jersey	Indiana
Kansas	New York	West Virginia
Maryland	Ohio	Illinois

Depreciation accounts are mandatory in Ohio and Wisconsin, and the commission may require them in Arizona, California and New Jersey. Recent statutes provide for depreciation accounts in Idaho, Illinois, Indiana, Mississippi and Pennsylvania and Michigan.

In 18 states the consent of the commission is necessary to authorize the issue of stock and bonds.

Arizona	Michigan	Texas
California	Nebraska	Vermont
Georgia	New Hampshire	Wisconsin
Kansas	New Jersey	Illinois
Maryland	New York	Indiana
Massachusetts	Ohio	Pennsylvania

A certificate of convenience and necessity is required in 20 states before commencing operations under a franchise.

Arizona	Michigan	Idaho
California	New Hampshire	Illinois
Connecticut	New York	Indiana
Kansas	Ohio	Mississippi
Maine	South Dakota	Pennsylvania
Maryland	Vermont	West Virginia
Massachusetts	Wisconsin	

Indeterminate franchises are provided for in Massachusetts and Wisconsin and by recent legislation, according to Sharfman, in Idaho, Illinois, Indiana, Missouri, Pennsylvania and West Virginia.

Perhaps the most explicit, at least the most notable, of the public service commission laws is that of Wisconsin. The Wisconsin law provides:

> Every license, permit or franchise hereafter granted to any public utility shall have the effect of an indeterminate permit, subject to the provisions of this act, and subject to the provisions that the municipality in which the major part of its property is situate may purchase the property of such utility actually used and useful for the convenience of the public at any time as provided herein, paying therefor just compensation to be determined by the commission and according to the terms and conditions fixed by the commission. Any such municipality is authorized to purchase said property, and every such public utility is required to sell such property at the value and according to the terms and conditions determined by the commission herein provided.
>
> Utilities existing at the time of the passage of the act could, prior to July 1, 1908, surrender their franchise and receive an indeterminate franchise or permit.
>
> The commission shall value all the property of every public utility, and may at any time on its own initiative make a revaluation of such property. The commission may fix such rates as are just and reasonable.

In the state of New York, with the exception of water works, practically all municipal utilities come under the provisions of the public service commission law.

Under this law the commission has power to fix the standard for gas and to order improvements and extensions; to prescribe the efficiency of the electric supply system, of the current supplied and the lamps furnished; to require gas to equal the standard fixed, and prescribe the maximum and minimum pressure. Charges for gas

and electricity shall not exceed those fixed by law or by the order of the commission and shall be just and reasonable. Require uniform system of keeping accounts. No gas or electrical corporation shall begin the construction of gas or electrical works without the permission and approval of the commission. The commission may grant permission and approval if such construction be found necessary or convenient for public service. No municipality shall build, maintain and operate any works or system for manufacturing and supplying gas or electricity for other than municipal purposes without a certificate of authority granted by the commission.

The commission's consent is necessary for the issue of bonds, stocks and notes.

Practically the same provisions apply to the construction of steam heating plants under a franchise or by a municipality.

Telegraph or telephone companies must have a similar certificate of necessity before constructing under a franchise.

Water works and water supplies in New York state are under the jurisdiction of the conservation commission.

All plans for a new or increased water supply must be approved by the conservation commission before works can be constructed either by a municipality or by a company under a franchise.

While franchises in Wisconsin have been made indeterminate, the length of time for which franchises may be granted in New York does not appear to have been changed.

By referring to the table it will be seen that only 15 states have placed water works under the control of their commission. Fifteen have placed practically all other utilities under commissions and in all of the 45 states the railroads are under commission control.

A study of the statutes reveals but little tendency toward shortening the duration of franchises, but on the contrary a tendency toward prolongation or, as in the case of Wisconsin, of indeterminate franchises. The indeterminate franchise has yet to win its place, although judging from recent legislation, it seems to be growing in favor. So far it is the only answer that has been made to a much vexed question. Many able lawyers have asked, "What are you going to do when your franchise expires?" And when the franchise has expired and even before, competing franchises have been granted with the result that the owners of one have purchased the other, thereby continuing with increased capitalization the previous conditions. In some cases where there was a contract for public service, as in the case of water or electric light, the municipality has

constructed works on the theory that the expiration of the contract terminated the franchise and all right to do business thereunder. Neither of these conditions is desirable. They never have resulted, and they never will result in benefit to the public at large.

With the franchises terminating at a fixed date, with no provision beyond that date, capital will grow more and more timid as that date approaches, with the consequence of a much rundown property and the poorest service that can, under the circumstances, care for the business. This has been demonstrated in many instances. To insure the proper maintenance and operation of utilities capital must be made secure not only up to but beyond any date that may be fixed.

The municipalizer will say that the remedy for all this is public ownership; and with public ownership properly acquired he is agreeing with all that has been said in this paper.

Some one has said, "Public utilities must be controlled and regulated by government, or must be left to do as they please or must be operated by the public." That they can be left to do as they please no one will contend. That they can be operated by the public is, of course, possible, but public ownership in the great majority of utilities is not here nor is it likely to be in the near future. Public ownership of water works exists in large and increasing numbers, and ownership of other utilities exists and will very likely increase. As engineers and managers we have to face both conditions. Towns that own their water works will not own any other utility; towns that own police and fire alarm systems will not own other signaling systems; towns that own the electric light plant will not own the gas plant; and towns that own the telephone system will not own the telegraph.

The question then is not how shall utilities operated under a franchise be controlled, but rather how shall utilities be controlled whether publicly or privately owned.

As a fundamental principle they should each be controlled and operated under the same rules and regulations. It will be argued that publicly owned utilities should not be operated for profit, while those privately owned are operated for that express purpose.

Every business will either show a profit or a loss and every utility, whether public or private, should be planned to show a balance on the credit side; in other words the maintenance and operation of no utility should be a charge on the general tax budget. Therefore the method of accounting should be the same in either case.

Every utility should be charged with the following:

Taxes on the same basis as other property.

Accident insurance.

Fire insurance.

All damages not covered by insurance.

Water, light, heat, telephones, etc.

Rental of offices and buildings, whether owned by the city or not, unless they are owned by the utility.

Interest on bonds, notes and other liabilities.

Legal expenses and services, even though performed by city attorney.

Engineering expenses and services, even though performed by the city's engineers.

Depreciation and sinking fund charges.

All utilities using the public streets should be charged, in addition to the repairs they are compelled to make, with an annual tax, depending on the character of the utility, to be paid into a pavement repair fund.

Every utility should be credited for every public service rendered, such as:

Fire protection.

Water for schools, fountains, street sprinkling and sewer flushing.

Electricity, gas, heat, telephones, etc.

Use of poles by other utilities.

Transportation of city employees and material not otherwise paid for.

Quoting from an article by John S. Kennedy in the *Forum:*

> In some cases the affairs of the lighting plants are so interrelated with those of the water or some other department that it is impossible to determine the actual results of the operation of either department. The commission, New York state, remarks that it is a matter of supreme importance, when municipalities embark in business enterprises, that they should adopt businesslike methods. The citizens of many a village are convinced that their lighting service is cheap when, as a matter of fact, it is dear, because the lack of proper accounting system fails to reveal the actual conditions.

All plans for construction of privately owned utilities should be approved by the city's engineers or be in accordance with general specifications prepared by the city, and where approval by state officials is required the same rules should apply whether the utility is to be publicly or privately owned.

The attitude of the manager or the engineer toward his property should be the same whether publicly or privately owned.

Efficiency in management should be secured in either case, and the reward of efficiency should be freely conceded not only to the manager but also to the capital which took the risk and produced the utility. This reward should accrue to the respective owners whether they be a corporation or a municipality. The writer is aware that this latter proposition will call forth loud protestation, but he would call attention to the fact that from 60 per cent to 75 per cent of the population of every city live in rented houses and pay but little or no taxes. If a municipally owned utility is established it is the property owner who takes the risk and stands the loss Therefore if the utility is a success the property owners should receive the benefit the same as though they were stockholders in a corporation. The proposition that municipally owned utilities should not be operated for profit is a delusion and a snare.

The proposition is boldly made that the rates for every municipally owned utility should be fixed on the basis of returning a reasonable profit. Take for example a telephone system. Fully two-thirds of the users are not taxpayers. If an unlimited suffrage compels municipal ownership, placing the risk of loss and all incidental expenses upon the realty, should not the rates be fixed so as to bring its ultimate reward in the shape of a surplus to the city treasury?

If a municipality is to engage in the business of any utility it should be required to first acquire the property of the particular utility then in existence. There may be reasonable exceptions, as in the case contemplated by the New York law, for a city to light its own streets without being required to engage in commercial lighting. Any theory of municipal ownership without acquiring the property of the utility in existence at the time must, if reasoned out to a conclusion, abrogate all right of regulation or control. On the other hand the denial of the right of government regulation will surely lead to competition by the municipality with resulting waste and disaster.

As men interested in water works you will note that in only 15 states are water works placed under the control of commissions. The reason for this is probably due to the fact that in most, if not all, states water supplies and water works are to some extent under the control of the state board of health.

In addition the franchises under which water companies operate

reserve a large measure of control to the municipalities. As a rule rates which may be charged for water as well as hydrant rental are fixed for a term of years and at the expiration of the term are subject to revision under a new contract. Some writers believe that local control is the proper method, and that commission control is wrong in principle, and the much mooted question of local self government as opposed to state control comes to the front. Here again water works afford the best field for investigation, and are the most prolific in argument for each side of the case. Local control has in many cases demonstrated its futility. Either it has been so easy that the utility company has been left to do as it pleased or it has been so severe that the utility has failed to survive. As the municipality is in fact a party to a contract it can not in fairness be left to interpret and change its terms. Resort must therefore be had to the courts or a commission, and for the present the logic of events points to the commission.

In the case of the municipally owned utility the management is frequently such that regulation by a state commission has been demonstrated to be desirable. If commission regulation is necessary for companies it is also desirable for the municipality, and all utilities whether publicly or privately owned should be subject to the same regulation.

The same system of accounts, the same principles governing charges to be made and service to be rendered, should apply to one the same as to the other.

It must not be inferred from the rapid spread of commission legislation that the panacea for all franchise troubles has been found. Franchise difficulties have always existed, from the time that Moses in anger struck the rock twice, and it is not supposable that they will at once terminate. Commissions have yet to demonstrate their practicability and usefulness; their rulings and decisions are liable to error. Much will depend upon the character and ability of the men composing the commissions. With the best of intentions equitable and just results will not always result. Their work should not be speedily approved nor too hastily denounced.

The question is one that cannot be dismissed. Public and private ownership are with us, and are bound to continue in varying proportions for years and even generations. The investments in privately owned utilities are growing to enormous figures and the question of regulation must be worked out with patience, fairness and wisdom.